

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Sung-Chul Shin et al. Confirmation No.:  
Serial No. :  
Filed :  
TC/A.U. :  
Examiner :

Docket No. : 03-608  
Customer No. : 34704

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

In accordance with the requirements of 37 CFR 1.97 and 1.98, Applicant hereby submits the documents listed hereinbelow, copies enclosed.

- (1) An article entitled "Magnetic Recording Medium and Magnetic Disk Device", By Kenhi Sato, dated August 31, 1999. This article discloses a magnetic recording medium comprising a nonmagnetic substrate; and, provided on the nonmagnetic substrate in the following order: an underlayer comprising chromium as a major component and molybdenum as a minor component; and a recording layer comprising 56 to 78 at % of cobalt, 14 to 22 at % of chromium, 4 to 20 at % of platinum, and a sum of 0.5 to 4 % of tantalum and niobium, the recording layer having a  $tBr$  (a product of the thickness  $t$  and the residual magnetization density  $Br$  of the recording layer) of 40 to 200 g. $\mu$ m. A longitudinal magnetic

recording medium is provided which has high coercive force, contributing to a high reproduction output, and, at the same time, a low noise level.

- (2) An article entitled “Direct Observation of non-Gaussian Distribution of Local...”, By Choe et al., dated 2002. This article discloses that magnetic properties of Co-based multilayer films are shown to exhibit their local variations far from the Gaussian (or Lorentzian) distribution which are usually assumed. The local variations of the coercivity and the field dependence  $\lambda(= -\partial \ln r / \partial H)$  were determined from measurements of the hysteresis loop and the field-dependent switching time  $r$ , respectively, on spatially resolved local regions 400 nm in size by means of a magneto-optical microscope magnetometer. It shows that the two local magnetic properties inversely correlate with each other and a thermally activated process takes place during magnetization reversal on a submicrometer scale in ferromagnetic thin films.

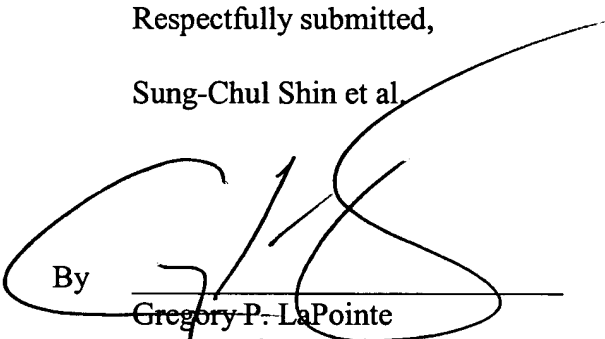
The undersigned submits the above-identified references for independent consideration by the Examiner and does not make any admission that these references are or are not material to

the present invention or that these references are or are not prior art with respect to the present invention.

Respectfully submitted,

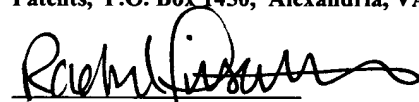
Sung-Chul Shin et al.

By

  
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Date: September 29, 2003

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail in an envelope addressed to: "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313" on September 29, 2003.

  
Rachel Piscitelli

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

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of

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### Complete if Known

Application Number

Filing Date

First Named Inventor

Sung-Chul Shin et al.

Group Art Unit

Examiner Name

Attorney Docket Number

03-608

### OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		An article entitled "Magnetic Recording Medium and Magnetic Disk Device", By Kenhi Sato, dated August 31, 1999.	
		An article entitled "Direct Observation of non-Gaussian Distribution of Local...", By Choe et al., dated 2002.	

Examiner  
Signature

Date  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Unique citation designation number. <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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